

AMENDMENTS TO THE CLAIMS

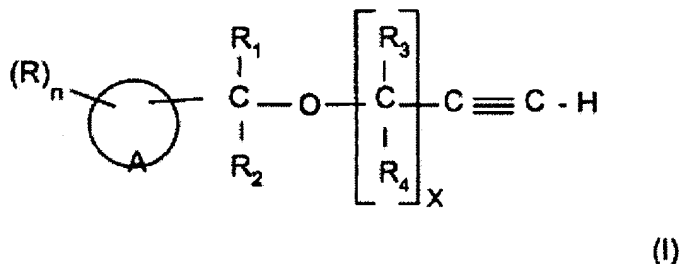
This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-22. (Canceled)

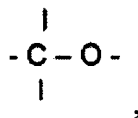
23. (Previously presented) A process for preparing a substituted mixed alkynyl ether of from a starting mixed alkynyl ether comprising a hydrogen atom on a triple bond, said process comprising the steps of:

a) reacting said starting mixed ether of the following formula (I):



wherein:

- A represents a residue of a cycle forming all or a part of an aromatic, monocyclic or polycyclic, carbocyclic or heterocyclic system comprising at least one group of formula:



- R represents one or more substituent(s), which are identical or different,

- R₁ and R₂, which are identical or different, represent a hydrogen atom, a functional group, a hydrocarbon group containing 1 to 24 carbon atoms, which is linear or

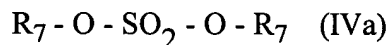
branched, saturated or unsaturated, an acyclic, saturated or unsaturated, aliphatic group, a monocyclic, polycyclic or aromatic cycloaliphatic group, or a linear or branched, saturated or unsaturated aliphatic group having a cyclic substituent,

- R_3 and R_4 , which are identical or different, represent a hydrogen atom or a hydrocarbon group containing 1 to 12 carbon atoms,

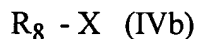
- n is a number smaller than or equal to 5, and

- x is a number from 1 to 10, with an alkylation agent, which is:

a dialkylsulphate of formula (IVa):



wherein R_7 represents a linear or branched alkyl group containing 1 to 6 carbon atoms, or a halide compound of formula (IVb):

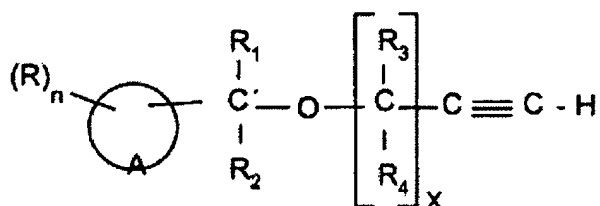


R_8 represents a hydrocarbon group containing 1 to 20 carbon atoms, which is a linear or branched, saturated or unsaturated, acyclic aliphatic group; a saturated, unsaturated or aromatic, monocyclic or polycyclic cycloaliphatic group; or a linear or branched, saturated or unsaturated aliphatic group carrying a cyclic substituent; and

X represents a bromine, chlorine or iodine atom;

in the presence of an anionisation agent which is an amide base, a metallic alcoholate or an alkali metal, and

b) recovering said substituted mixed alkynyl ether of formula (IV):



(I) (IV)

wherein A, R, R₁, R₂, R₃, R₄, n and x have the meaning given above, and R₉ represents said R₇ or R₈ group.

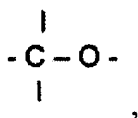
24. (Canceled)

25. (Previously presented) A process according to claim 23, wherein x is a number from 1 to 5.

26. (Previously presented) A process according to claim 23,

wherein:

- A represents a residue of a cycle forming all or a part of an aromatic, monocyclic or polycyclic, carbocyclic or heterocyclic system comprising at least one group of formula:



- R represents one or more substituent(s), which are identical or different,

- R₁ and R₂, which are identical or different, represent:

- a linear or branched, saturated or unsaturated, acyclic alkyl group, having an hydrocarbon chain, comprising 1 to 6 carbon atoms, the hydrocarbon chain being

optionally interrupted by a heteroatom, or a functional group, and carrying optionally substituents,

- a linear or branched, saturated or unsaturated, acyclic aliphatic group carrying a cyclic substituent, being optionally substituted, said acyclic group being connected to the cycle via a covalent bond, a heteroatom or a functional group,
 - a carbocyclic group, saturated or comprising 1 or 2 unsaturated bonds in the cycle, containing 3 to 8 carbon atoms in the cycle, said cycle being optionally substituted,
 - an aromatic monocyclic carbocyclic group, containing at least 4 carbon atoms in the cycle, said cycle being optionally substituted, or
 - a CF₃ group, for one of groups R₁ and R₂.
- R₃ and R₄, which are identical or different, represent a hydrogen atom or a hydrocarbon group containing 1 to 12 carbon atoms,
- n is a number smaller than or equal to 5, and
- x is a number from 1 to 10.

27. (Previously presented) A process according to claim 23, wherein A is a residue of a cyclic compound comprising at least 4 carbon atoms in the cycle, optionally substituted, and representing at least one of the following cycles:

- an aromatic, monocyclic or polycyclic carbocycle, or
- an aromatic, monocyclic or polycyclic heterocycle comprising at least one heteroatom selected from the group consisting of O, N or S.

28. (Previously presented) A process according to claim 27, wherein A is a residue of a benzene or naphthalene cycle, optionally substituted.

29. (Previously presented) A process according to claim 27, wherein A carry one or more electron-donating group(s) selected from the group consisting of:

- linear or branched alkyl groups,
- linear or branched alkenyl groups,
- linear or branched halogenoalkyl groups,
- cycloalkyl groups comprising 3 to 6 carbon atoms,
- a phenyl group,
- alkoxy groups of formula R_5-O- or thioether groups of formula R_5-S- , wherein R_5 represents a linear or branched alkyl group comprising 1 to 6 carbon atoms, or a phenyl group,
- groups of formula $-N-(R_6)_2$, wherein R_6 groups, which are identical or different, represent a hydrogen atom, a linear or branched alkyl group comprising 1 to 6 carbon atoms, or a phenyl group, and
- a $-CF_3$ group.

30. (Previously presented) A process according to claim 27, wherein A carry one or more electron-donating group(s) selected from the group consisting of:

- linear or branched alkyl groups, comprising 1 to 4 carbon atoms,
- linear or branched alkenyl groups, comprising 2 to 4 carbon atoms,
- linear or branched halogenoalkyl groups, comprising 1 to 4 carbon atoms,
- a cyclohexyl group,

- a phenyl group,
- alkoxy groups of formula R_5-O- or thioether groups of formula R_5-S- , wherein R_5 represents a linear or branched alkyl group comprising 1 to 4 carbon atoms, or a phenyl group,
- groups of formula $-N-(R_6)_2$, wherein R_6 groups, which are identical or different, represent a hydrogen atom, a linear or branched alkyl group comprising 1 to 4 carbon atoms, or a phenyl group, and
- a $-CF_3$ group.

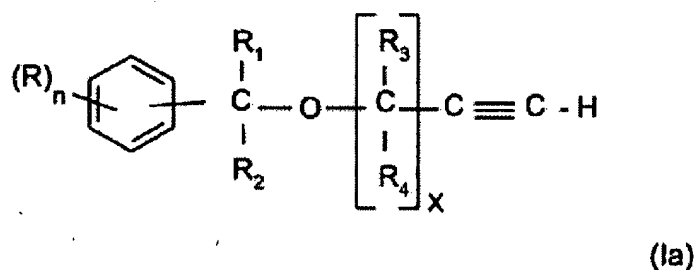
31. (Previously presented) A process according to claim 23, wherein n is greater than or equal to 2, two groups R and 2 successive atoms on the aromatic cycle being bonded together via an alkylene, alkenylene or alkenylidene group containing 2 to 4 carbon atoms, to form a saturated, unsaturated or aromatic heterocycle containing 5 to 7 carbon atoms, one or more carbon atoms being optionally replaced by a further heteroatom.

32. (Previously presented) A process according to claim 23, wherein n is greater than or equal to 2, two groups R and 2 successive atoms on the aromatic cycle being bonded together via an alkylene, alkenylene or alkenylidene group containing 2 to 4 carbon atoms, to form a saturated, unsaturated or aromatic heterocycle containing 5 to 7 carbon atoms, one or more carbon atoms being optionally replaced by a further oxygen atom.

33. (Previously presented) A process according to claim 23, wherein R_3 and R_4 , which are identical or different, represent a hydrogen atom or a linear or branched alkyl group containing 1 to 12 carbon atoms.

34. (Previously presented) A process according to claim 33, wherein R_3 and R_4 , which are identical or different, represent a hydrogen atom or a linear or branched alkyl group containing 1 to 4 carbon atoms.

35. (Previously presented) A process according to claim 23, wherein that the starting mixed ether has the following ~~general~~ formula (Ia):



wherein:

- n is a number equal to or smaller than 4,
- x is a number equal to 1, 2 or 3,
- R group or groups are electron-donating groups,
- R_1 and R_2 groups, which are identical or different, represent:
 - a hydrogen atom,
 - a linear or branched alkyl group containing 1 to 6 carbon atoms,
 - a cycloalkyl group containing 3 to 8 carbon atoms,
 - a phenyl group,
 - a phenylalkyl group containing 7 to 12 carbon atoms, or

- a CF₃ group, and

- R₃ and R₄ groups, which are identical or different, represent a hydrogen atom or a linear or branched alkyl group containing 1 to 4 carbon atoms.

36. (Previously presented) A process according to claim 35, wherein in formula (Ia):

- n is 1 or 2,

- x is a number equal to 1, 2 or 3,

- R group or groups are methylenedioxy or ethylenedioxy groups,

- R₁ and R₂ groups, which are identical or different, represent:

- a hydrogen atom,

- a methyl, ethyl, propyl, isopropyl, butyl, isobutyl, sec-butyl, tert-butyl group,

- a cyclopentyl or cyclohexyl group,

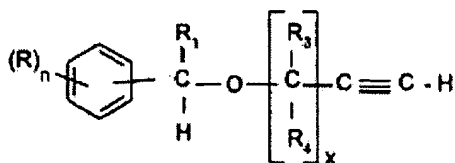
- a phenyl group,

- a benzyl group, or

- a CF₃ group, and

- R₃ and R₄ groups, which are identical or different, represent a hydrogen atom or a linear or branched alkyl group containing 1 to 4 carbon atoms.

37. (Previously presented) A process according to claim 23, wherein the starting mixed ether has the following formula (Ib):



(Ib)

wherein:

- n is equal to 1 or 2,
- R group or groups represent an alkyl or alkoxy group containing 1 to 4 carbon atoms, or a methylenedioxy group, and
- R₁ represents a hydrogen atom or a linear or branched alkyl group containing 1 to 4 carbon atoms.

38. (Previously presented) A process according to claim 23, wherein the starting mixed ether is [1-(prop-1-ynyloxy)ethyl]-3,4 dimethoxybenzene.

39-41. (Canceled)

42. (Previously presented) A process according to claim 23, wherein X represents a chlorine atom or an iodine atom and R₈ represents a linear or branched alkyl group containing 1 to 4 carbon atoms.

43. (Previously presented) A process according to claim 23, wherein the alkylation agent is dimethylsulphate, methyl iodide, methyl chloride, chloroethane, methyl bromide or bromoethane.

44. (Canceled)

45. (Previously presented) A process according to claim 23, wherein the anionisation agent is selected from the group consisting of lithium diisopropylamide, and lithium hexamethyldisilazane.

46. (Previously presented) A process according to claim 45, wherein the alkali metal alcoholate is sodium or potassium methylate, ethylate or tert-butylate.

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AMENDMENT/ELECTION

47. (Previously presented) A process according to claim 45, wherein the anionisation agent is sodium or potassium amide.

48. (Previously presented) A process according to claim 23, wherein the reaction is carried out in an organic solvent that is inert towards the anionisation agent.

49. (Previously presented) A process according to claim 48, wherein the organic solvent is an aliphatic or aromatic hydrocarbon.

50. (Previously presented) A process according to claim 23, wherein the temperature of the reaction is comprised between 20°C and a reflux temperature of the reaction mixture.

51. (Previously presented) A process according to claim 50, wherein the temperature is comprised between 50°C and 80°C.

52. (Previously presented) A process according to claim 23, wherein the starting mixed ether of benzyl/alkynyl type of formula (I) and the anionisation agent are brought into contact in a reaction medium, the reaction medium being heated to a desired temperature, the alkylation agent being then added, and the substituted mixed ether of benzyl/alkynyl type obtained being recovered.